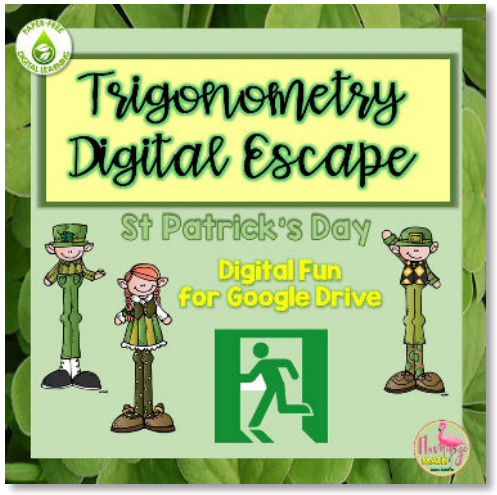
Trigonometric Function Escape Room



KEY CONCEPTS/TOPICS:

1. Find periodic function values
2. Solve trigonometric equations
3. Use Properties of trig functions to simplify expressions.
4. Identify equations given graphs
5. Write equations given characteristics of trig graphs.

GENERAL DIRECTIONS:

Students work five Break Out Rooms related to Trigonometric Functions & Graphs using Google Slides™ and Google Forms™.

Product Overview

Trigonometric Functions Escape Room

This is a digital activity that is designed to help your PreCalculus students review key concepts related to Trigonometric Functions, graphs, properties, inverse trig functions, simple identities, and writing equations for trig functions given characteristics of the graph. There are 24 questions in the activity, with five Break Out Rooms. When the questions are resolved for each room, students will choose their answers from an answer bank and record the 4-6 letters into a Google Form™ in order to advance to the next Break Out Room. When the activity is complete, a Congratulations Page will be displayed.

Students will be provided an individual worksheet to record their work for accountability.

About this Activity:

Your PreCalculus students will have 5 Break-Out Rooms, containing 4-6 questions in each room, related to concepts in the Trigonometric Functions& Graphs unit. There are a wide variety of questions that include the following operations:

1. Find periodic function values
2. Solve trigonometric equations
3. Use Properties of trig functions to simplify expressions.
4. Identify equations given graphs
5. Write equations given characteristics of trig graphs.

Solutions will be found on the "Answer Choice" Bank in each Break-Out Room. Students will record the four-six letter code on a Google Form in order to advance to the next room.

This is a fun approach to review Trigonometric Functions, Graphs and Expressions before the end of the unit on Trigonometric Functions.

An answer key is provided as well as a completed solution set.

Have a wonderful week!

Jean

Product Pages

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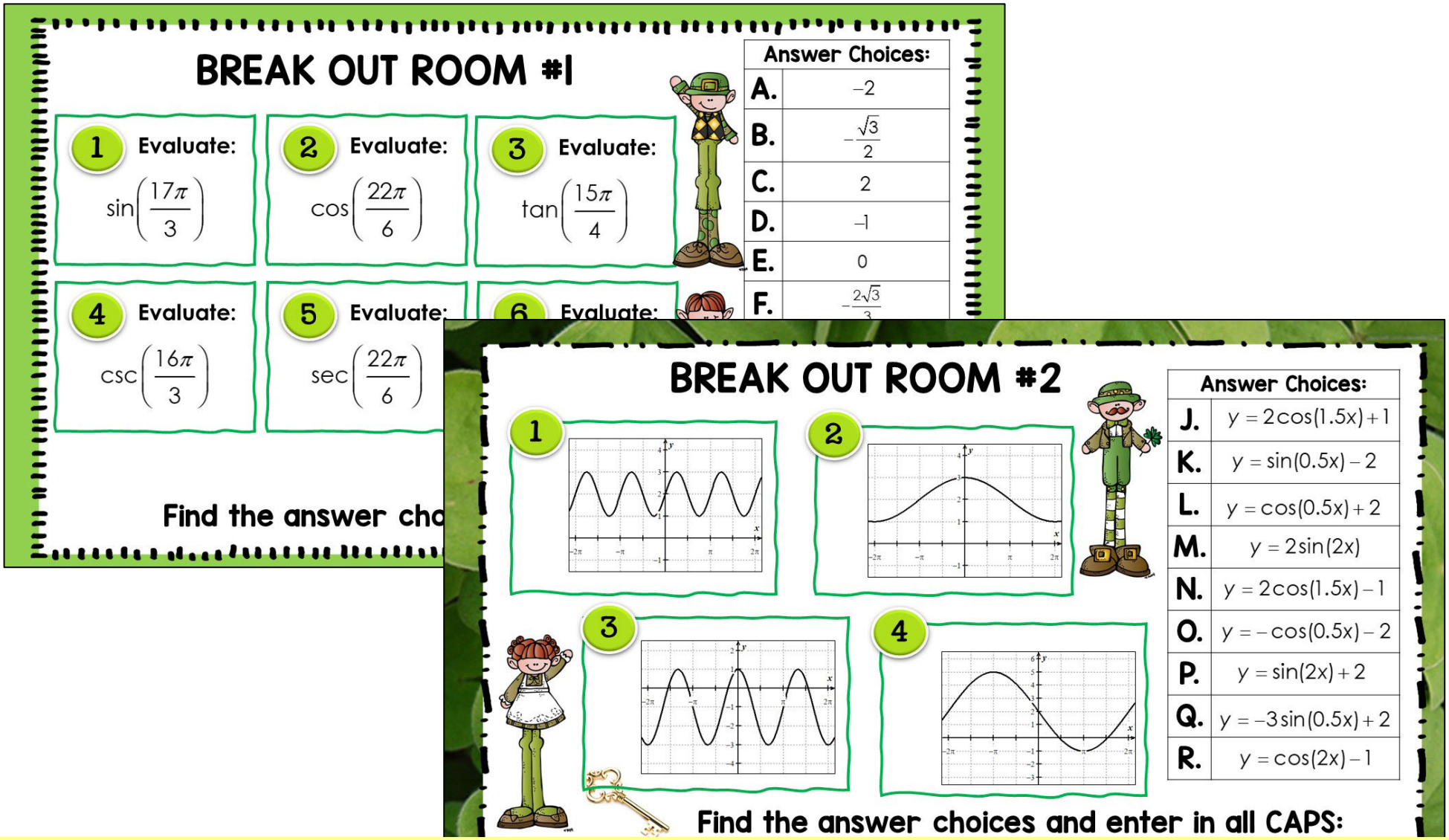

Students love Escape Rooms!

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BREAK OUT ROOM #3

1 Evaluate: $\cos\left(\sec^{-1}\left(\frac{\sqrt{5}}{2}\right)\right)$

2 Evaluate: $\tan\left(\sin^{-1}\left(\frac{\sqrt{3}}{2}\right)\right)$

3 Evaluate: $\csc\left(\cot^{-1}(1)\right)$

4 Evaluate: $\sec\left(\tan^{-1}(-3)\right)$

5 Evaluate: $\sec^{-1}\left(\csc\left(\frac{5\pi}{6}\right)\right)$

6 Evaluate: $\cot^{-1}\left(\sec(\pi)\right)$

Answer Choices:	
S.	$\sqrt{2}$
T.	$-\sqrt{3}$
U.	$\frac{2\sqrt{5}}{5}$
V.	$\frac{\pi}{3}$
W.	$\frac{\sqrt{5}}{2}$
X.	$\sqrt{3}$
Y.	$\frac{3\pi}{4}$
Z.	$\sqrt{10}$
A.	$\frac{\pi}{6}$

Find the answer choices and enter in all CAPS:

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$\frac{}{1-\cos(x)} + \frac{}{1+\cos(x)}$

$\frac{}{\sec(x)}$

3 Solve on [0, 2π]:

$\tan x - \sqrt{3} = 0$

4 Solve on [0, 2π]:

$2\cos^2(x) - \cos(x) - 1 = 0$

Answer Choices:	
B.	$x = \frac{2\pi}{3}, \frac{4\pi}{3}$
C.	$-\sin^2(x)$
D.	$-\cos^2(x)$
E.	$x = \frac{\pi}{3}, \frac{7\pi}{3}$
F.	$2\sec^2(x)$
G.	$x = \frac{\pi}{4}, \frac{7\pi}{4}$
H.	$2\csc^2(x)$
I.	$x = 0, \frac{\pi}{3}, \frac{2\pi}{3}$
J.	$x = 0, \frac{2\pi}{3}, \frac{4\pi}{3}$

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